CITY OF BOULDER
CITY COUNCIL AGENDA ITEM

MEETING DATE: June 6, 2006

AGENDA TITLE: Information on City Manager Recommended Actions regarding Prairie Dog Management at Tom Watson and Valmont City Parks.

PRESENTER/S:
Frank W. Bruno, City Manager
Stephanie Grainger, Deputy City Manager
Jan Geden, CPRP, Director, Parks and Recreation Department
Alice Guthrie, Parks and Planning Superintendent
Jeanne Scholl, Acting Planning Manager

EXECUTIVE SUMMARY:

Prairie dogs have encroached into the playing fields at Tom Watson Park and are threatening to encroach on the multi-purpose fields at Valmont City Park (See maps in Attachments A and B). In order to address this encroachment and to regain the fields at Tom Watson, the City Manager has directed staff to use a combination of mitigation and removal tools, including lethal control, to remedy this situation.

Staff has followed the six-step process outlined in the city's wildlife ordinance to try and remedy the situation. Mitigation techniques have been used at both parks including visual and structural barriers and relocation. Prairie dog management alternatives are shown in Attachment C. To date, these techniques have been ineffective.

Beginning in mid-June (or as soon as a contractor can obtain the necessary permits), prairie dogs will be trapped and lethally controlled at both sites unless a permitted relocation site becomes available between now and mid-June. Staff proposes to flush the prairie dogs from their burrows and use carbon dioxide for lethal control.

If a non-city entity or organization is able to provide a permitted receiving site, staff will work with this entity to relocate the prairie dogs rather than using lethal control. However, these entities will have to notify the city of a state-certified site by June 30th. This timeline is based upon the maintenance schedule for refurbishing the playing fields at Tom Watson Park. Additional time may be allowed for Valmont City Park, depending on the proximity of the prairie dogs to the multi-purpose field. The short time frame staff has established will, hopefully, allow for play to resume at Tom Watson Park for the fall season and allow for continued use of the multi-purpose fields at Valmont City Park.

Key Issue Identification: The proposed actions for prairie dog management include the use of lethal control to protect city facilities and to ensure the safety and well being of the public. The City Manager wants to make Council and the public aware of these actions before they occur.

STAFF RECOMMENDATION:

The City Manager recommends that staff proceed with a plan to flush and lethally control prairie dogs at both sites. If a relocation site becomes available between now and the time of this action, then staff will relocate as many prairie dogs as possible. The city will also offer the prairie dogs to any individual or organization that is certified to perform relocations and has a state-approved relocation site.

COUNCIL FILTER IMPACTS:

- Economic: The prairie dog encroachment at both of these parks sites has resulted in the damage of Parks & Recreation assets. The encroachment of the prairie dogs onto the Tom Watson ball fields has resulted in a minimal loss of revenue to the city from the North Boulder Little League, approximately $1,900 for the 2005 spring/summer playing season. Although the revenue loss is minimal, there is a significant impact to the youth and adults wanting to enjoy recreation activities at this park site. Staff plans to have the playing fields available for play in the fall. Prairie dog control at Valmont City Park is necessary to protect the investment in the multi-purpose playing fields.

- Environmental: The prairie dog encroachment at these two parks affects the safety and well-being of the public trying to use these fields due to the risk associated with allowing play where there are open burrows (trip and fall hazard). In addition, continued efforts to deter further encroachment of prairie dogs at these locations is not sustainable and continually disturbs the animals, with no net gain as far as removing them and/or preventing further expansion on the site. Flushing alone should not adversely impact the prairie dogs or the other species that might be found in the burrows (more information on flushing can be found at Attachment D). The use of carbon dioxide as the lethal treatment will occur in enclosed chambers and will not impact non-target species or the surrounding environment.

- Social: The encroachment into the fields at Tom Watson Park has resulted in the closing of these fields to play for the spring/summer season. Approximately 100 little league players have been affected in addition to players from IBM.

OTHER IMPACTS:

- Fiscal: The cost to fill the burrows and monitor and repair existing barriers at both parks has been costing P&R approximately $2,000/ week in staff time. The cost of flushing and lethal control at both parks is estimated to be between $18,000 and $24,000 for the initial treatment. Subsequent treatments at both sites most likely will be required, likely at reduced costs over time, and will be ongoing unless some type of exclusion mitigation occurs and/or barriers are installed. Staff

is recommending the installation of metal barrier around the play ground at Tom Watson Park at a cost of approximately $13,000. Staff believes that a metal barrier around the multi-purpose playing field at Valmont City Park will help deter further encroachment and prevent the need for costly, ongoing lethal control. The estimated cost for this type of barrier at that location is approximately $60,000. However, installation of a barrier will not occur at this time. Staff will monitor the activity at this park and notify Council at such time as it believes that lethal control efforts alone are inadequate in addressing the encroachment problem at this location.

- Staff time: Developing this action plan and overseeing the contractual work for the prairie dog removal is part of the work program of Parks & Recreation Conservation Team. As these types of situations are increasing with the explosion of prairie dog populations combined with habitat loss in the Front Range, the demand on staff time is increasing. Staff is tracking time and costs in 2006 and will have better information on the impacts by year end.

BOARD AND COMMISSION FEEDBACK:

This item has not been discussed with any boards or commissions at a public hearing. The Parks and Recreation Advisory Board (PRAB) has been made aware of the prairie dog situation at both parks.

PUBLIC FEEDBACK:

Staff has not sought public feedback on these actions, but has received comment from members of the public concerned about the loss of ball fields at Tom Watson Park. Staff has been holding public meetings and open houses and soliciting feedback on the prairie dog component of the Urban Wildlife Management Plan, and the situations at both Tom Watson Park and Valmont City Park have been identified. There are strong, opposing feelings within the community about the use of lethal control.

ANALYSIS:

Overview of Options and Costs

The Boulder Revised Code provides the city manager the authority to grant a special permit for lethal control for city projects (Section 6-1-39, B.R.C. 1981) as well as lethal control as a component of an on-going and continuous program (Section 6-1-11, B.R.C. 1981).

Options that staff considered for further mitigation at these sites and their associated costs are outlined in Attachment C and include the following:

- Vinyl barriers
- Vertical metal barriers
- Subsurface wire mesh
- Trap and relocation
- Trap and lethal control by carbon dioxide
- Capture by flushing and lethal control by carbon dioxide
- Lethal control by poisons (fumitoxins)

The staff time to fill burrows and monitor and repair existing barriers at both sites is expensive - approximately $2,000/week. This action was taken on an interim basis until a thoroughly researched action for the remainder of the playing season could be worked out.

The cost to trap and relocate prairie dogs from the 18 acres immediately surrounding the multi-purpose fields at Valmont Park is estimated to cost anywhere from $3,000 (assuming 50 prairie dogs at $60/dog) to $30,000 (assuming 150 prairie dogs at $200/dog). This range is broad because costs vary greatly depending on the contractor, the time of the year, the time it takes to trap and the type and condition of the receiving site(s) if available. There are a limited number of certified contractors that can and do provide these services and these contractors determine the "market" rate at the time of the work request. The cost for flushing and euthanasia is estimated to cost up to a maximum $12,000 per site for an initial treatment. Availability or demand from a wildlife recovery program also influences the costs and potential viability of this option. The cost to fumigate burrows is $900-$1,100 for the initial treatment. Although this is the cheapest option, staff has only recommended this option for managing the prairie dog situation at the Boulder Reservoir dams and at the airport.

Lethal Control Options & Costs
(Figures based on average of 100 prairie dogs per site.)

* Trapping costs will be higher than flushing due to longer of period of time required to capture animals (e.g. weather conditions, animal behavior, trap vandalism, etc.).

Options	Contractors' Estimate per Day	Cost per prairie dog	Total cost Estimate Tom Watson Park (ball fields & buffer area)	Total cost Estimate Valmont City Park (300 foot buffer around multi-purpose field)
Trap and relocation*		$60-$200	$6,000 - $20,000 (initial treatment)	$6,000 - $20,000 (initial treatment)
Trap and lethal control by carbon dioxide	$1,800 - $2,500	$90 - $120	$9,000 - $12,500 (5 day initial treatment)	$9,000 - $12,500 (5 day initial treatment)
Capture by flushing and lethal control by carbon dioxide	$1,800 - $2,500	$90 - $120	$9,000 - $12,500 (5 day initial treatment)	$9,000 - $12,500 (5 day initial treatment)
Lethal control by poisons (fumitoxins)		$2.50 - $3.50 (per burrow)	$750 - $850 (plus $500 set-up fee; initial treatment only)	$750 - $850 (plus $500 set-up fee; initial treatment only)

Staff would like to consider installation of subsurface wire mesh at additional sites; however, this activity should be done in coordination with construction or earthwork activity going on at a site. Also, wire mesh is costly – it would be approximately $100,000 to install wire mesh at all the playing fields at Tom Watson – and until its efficacy is better determined, staff recommends installing the mesh for smaller projects.

Tom Watson Park

Tom Watson Park is leased to the city from IBM. The 31-acre park and ball fields are contiguous to 73 acres of prairie dog habitat on Open Space and Mountain Parks (OSMP) conservation easement and IBM land and surrounding prairie dog habitat areas. It is estimated that approximately 100-150 prairie dogs are on the ball fields and/or within the 75' buffer area surrounding the fields. Staff has tried to keep the prairie dogs out of the park with the use vinyl barriers and ongoing relocation efforts since 1997 when the grant of a park and recreation easement was conveyed from IBM to the city. The wooden barrier was installed in 2001 and has proven ineffective. Staff believes this is due to the improper installation of the fence, as it split existing coteries (family units). There was already an existing underground system of burrows that allowed the prairie dogs to travel under the fence. Currently, staff monitors and fills the burrows three times per week at this site to try and prevent further encroachment and colonization. Staff had been filling burrows twice daily, but found that this practice actually encouraged and accelerated the prairie dog encroachment into the fields.

Recommendation: Staff believes that flushing and lethal control with carbon dioxide is the best balance of cost, timeliness and more humane lethal control (than fumigants/poisons) of the animals. More information about flushing can be found in Attachment D. Follow-up mitigation activities will include destroying burrows in the playing fields and rehabilitation of the turf. The fields will be monitored and any new burrows destroyed immediately. In the buffer area outside of the fields, burrows will be destroyed and the area filled in with gravel or rock.

P&R Staff is looking at long-term strategies for management of prairie dogs at Tom Watson Park as this park is an "island" in a sea of prairie dogs. Hardscape recreation features are being evaluated for this park as part of the P&R master plan.

Valmont City Park

At Valmont City Park, staff estimates that approximately 18 acres immediately surrounding the multi-purpose fields are impacted with 150 burrows and about 50-150 prairie dogs. The entire park site is approximately 50 acres and is occupied by prairie dogs, with an estimated, average prairie dog density of 20-25 animals per acre. Existing vinyl barriers and numerous relocation efforts (2000, 2001 and 2002) have failed to keep the prairie dogs from encroaching near the multi-purpose playing fields. Staff has also been filling the burrows at this site on a regular basis.

Recommendation: Staff believes that flushing and lethal control with carbon dioxide is the best balance of cost, timeliness and more humane lethal control (than fumigants/poisons) of the animals. More information about flushing can be found in

Attachment D. Staff believes that lethal control in combination with a metal barrier around the multi-purpose playing fields at Valmont City Park will help deter further encroachment from the contiguous colony and prevent the need for costly, ongoing lethal control in the long-term. The estimated cost for this type of barrier at that location is approximately $60,000. However, no barrier will be installed at this time. Staff will monitor the activity at this park and notify Council at such time as it believes a barrier needs to be installed.

MATRIX OF OPTIONS:

Attachment C is a list of potential prairie dog management alternatives and associated costs that staff considered in making its decision regarding these two park sites. Staff recommends flushing and lethal control with carbon dioxide. Staff can provide tours of either or both sites if this would be helpful to Council.

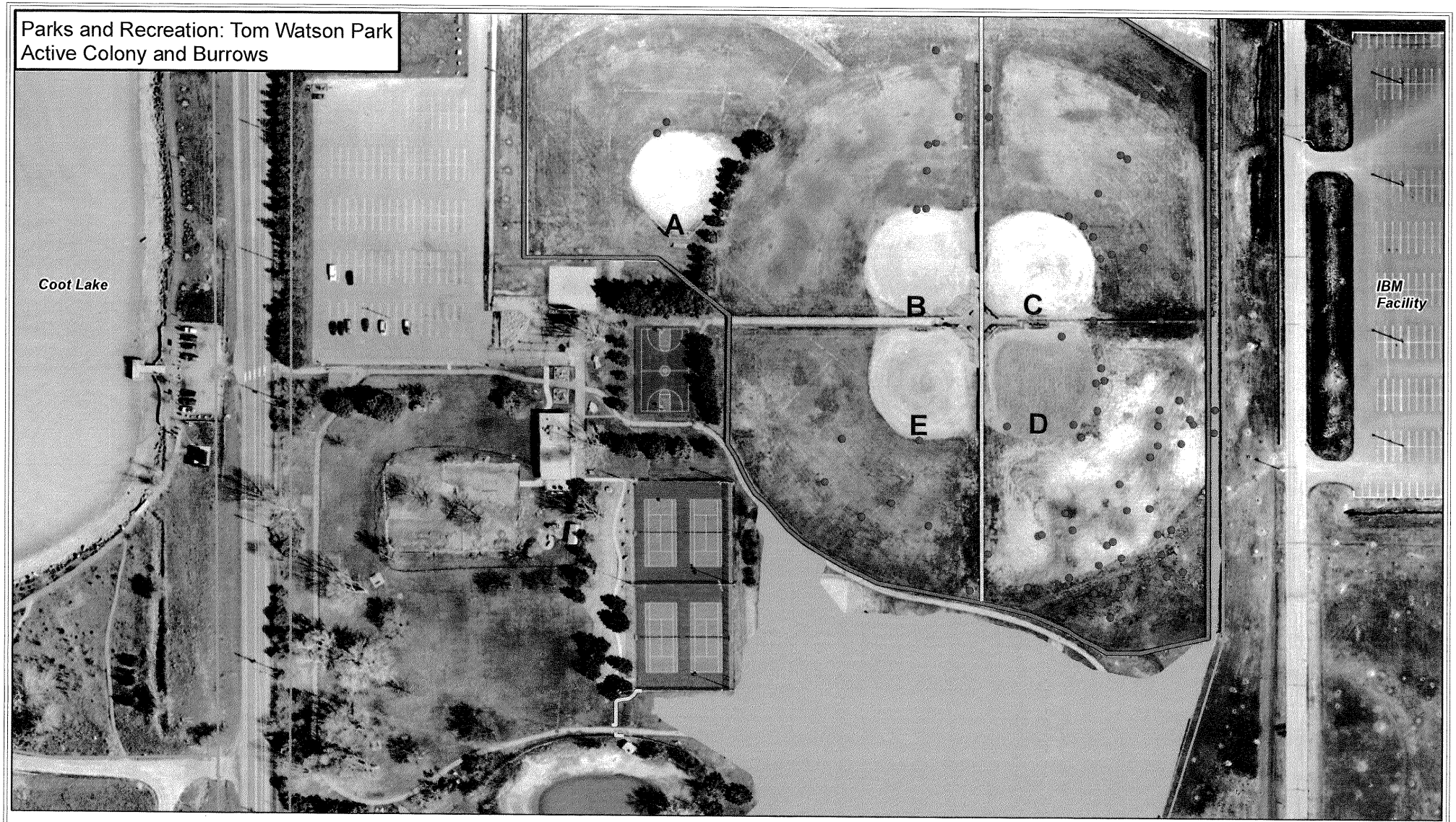
Approved By:

_____

Frank W. Bruno,
City Manager

ATTACHMENTS:
Attachment A – Map of Prairie Dog Burrows at Tom Watson Park
Attachment B – Map of Prairie Dog Burrows at Valmont City Park
Attachment C – Prairie Dog Management Alternatives
Attachment D – Information Sheet – Prairie Dog Flushing

Parks and Recreation: Tom Watson Park
Active Colony and Burrows



CITY OF BOULDER
Parks & Recreation

Map produced by the Conservation and Planning Division, Parks and Recreation, City of Boulder.

This map is for illustrative purposes only, and is not suitable for legal or parcel-specific decision making. The areas dipicted are approximate. Agreements and easements exist on some managed areas. More site-specific studies may be required to draw accurate conclustions.

Legend

- Active Burrows in Ballfields
- Active Colony
- Temporary Vinyl Barriers
- Wood-Concrete Barrier

0 50 100 200 300 400 Feet

N
W E
S

Valmont City Park - Prairie Dog Management

CITY OF BOULDER
Parks & Recreation

Map produced by the Conservation and Planning Division, Parks and Recreation, City of Boulder.

This map is for illustrative purposes only, and is not suitable for legal or parcel-specific decision making. The areas dipicted are approximate. Agreements and easements exist on some managed areas. More site-specific studies may be required to draw accurate conclusions.

Legend

- Active Burrows 5/30/06
- City Parks
- City-wide Prairie Dog Mapping
- 300' Proposed Buffer, ~18 acres

0 100200 400 600 800 1,000 1,200 Feet

N W E S

ATTACHMENT C

Prairie Dog Management Alternatives

Tom Watson Park

Costs to Repair Fields and Install Exclusion Measures within a 75 foot Buffer Area:

1.	Estimated cost to repair and refurbish all fields:	**$11,793**
2.	Estimated cost to rip, back-drag and compact a 75 foot buffer area:	**$14,570**
3.	Estimated cost to restore a landscaped buffer area:	
	a) Install weed barrier and gravel top-dress a 75 foot buffer area:	**$33,000**
	b) Drill seed and/or xeriscape	**$2,000-$8,000**

Potential Long-term Exclusion Options and Costs for the Ball fields
(Installation of a sub-surface wire mesh or horizontal metal barrier)

Option 1.	Four primary fields and one practice field:	**$99,000**
Option 2.	Four primary fields only	**$83,640**
Option 3.	75' buffer area outside wood barrier (add to option 1 or 2)	**$39,720**

Summary of Costs for Management Options in the Six-Step Process:

1.	Minimize conflicts through non-removal (Loss of public asset with a replacement cost for 21 acres of developed parkland)	**$6,700,000**
2.	Remove on a portion of the site (not including the regular, on-going removal and field repairs that would be required)	**$28,000 - $35,000**
3.	Evaluate Potential Relocation (if a relocation site is available)	**$47,000 - $104,000**
4.	Lethal control and donate to a wildlife recovery program	**$50,000 - $86,000**
5.	Lethal control through trapping and CO_2 treatment	**$50,000 - $86,000**
6.	Lethal control with fumigants (poisons)	**$42,000 - $75,000**

ATTACHMENT C

Valmont City Park

Potential Long-term Exclusion Options and Costs for the Multi-use Playing Field

Option 1.	Enclosure of multi-use area with metal barrier (Includes contractor installation of barrier, pedestrian gates, replacement of irrigation, sod and 15% contingency)	**$64,141.00**
Option 2.	Lethal control of 300' buffer around multi-use field (based on initial 5 day treatment, with on-going treatments)	**$9,000 – $12,500**

Summary of Costs for Management Options in the Six-Step Process:

1.	Minimize conflicts through non-removal (Potential loss of public asset/multi-use field)	**$4,000,000**
2.	Remove on a portion of the site (see Step 3, 4, 5 and 6)	**N/A**
3.	Evaluate Potential Relocation (if a relocation site is available – 18 acre buffer)	**$6,000 - $20,000**
4.	Lethal control and donate to a wildlife recovery program	**$9,000 - $12,500**
5.	Lethal control through trapping and CO_2 treatment	**$9,000 - $12,500**
6.	Lethal control with fumigants (poisons)	**$750.00 – $850.00**

NOTE:
All costs are estimates based on past management efforts and documentation and information from other land management agencies and private contractors. Costs will vary based on actual bids by contractors and work implemented.

ATTACHMENT D

Information Sheet - Prairie Dog Flushing

June 1, 2006

- Flushing is a widely accepted method of capturing prairie dogs. The city of Boulder, other government agencies, relocators and prairie dog organizations have utilized flushing for many years.
- Based on staff experience, flushing can be less time consuming than regular trapping methods that rely on bait.
- Flushing will often "flush out" larger non- target animals such as rabbits, snakes and toads, but smaller animals or insects may be able to withstand the flushing without exiting the burrow.
- There are no studies to prove that animals do or do not drown.
- Flushing seems to cause fewer injuries to the prairie dogs, based on staff observation. During trapping they can stress and bang their noses against the traps, which causes them to bleed.
- Flushing seems to cause less stress, although they may be disoriented.
- The soap can be an eye irritant, so flushing their eyes with saline should be required, unless a non-soap foaming agent is used.
- When trapping, it can be more difficult to determine coteries (families). One can sometimes get an outsider and put it with the wrong coterie; however when flushing if the prairie dogs come from the same burrow, then they belong to the same family.

The flushing process

- See a prairie dog(s) on a burrow and go quickly to that burrow.
- Direct soapy water flow at side of burrow through a kinked hose, to increase the bubbles and decrease the water pressure so the burrow doesn't erode and collapse.
- The burrow will get a white, soap cap.
- Watch the cap for ebbs and flows – this will help determine when something is coming up the hole.
- Have your arm in the burrow if possible- this will allow you to feel an animal coming up the hole. Be prepared to grab whatever animal you see coming.
- Catch the animal and pass it off to someone waiting with a towel.
- Put saline in the animal's eyes to wash out the soap and towel dry off the animal.
- Depending upon the animal and the situation, release it outside of the control area or if it is a prairie dog, place it in a crate with towels or hay (if going to euthanize, but not preferred for relocation as can aspirate into lungs and cause pneumonia).
- Be sure to place crates in an area where animals will not be subjected to the elements – especially excessive heat.
- Transport securely.

References

City of Lakewood web site - http://www.lakewood.org/index.cfm?&include=/CR/Regional/BCLP/bclpWildlifeManagement.cfm

Prairie Dog Specialists web site - http://prairiedogspecialists.org/Relocation1page.html